Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A crossover network for a loudspeaker system comprising: a low-frequency driver (woofer) and a high-frequency driver (tweeter), comprising:

a) a low-pass filter having a low-pass filter frequency response operatively connected to a signal input and to said woofer for providing substantially only low-frequency signals thereto, said low-pass filter comprising a pair of mutually-coupled coils so as to generate a transmission zero in said low-pass filter frequency response so as to produce an effectively infinite upper frequency slope; and

b) a high-pass filter operatively connected to said signal input and to said tweeter, said high-pass filter having a relatively shallow lower frequency slope.

Claim 2 (original): The crossover network for a loudspeaker system comprising a woofer and a tweeter as recited in claim 1, wherein said low-pass filter and said high-pass filter are operatively connected to said signal input in a series arrangement.

Claim 3 (currently amended): The crossover network for a loudspeaker system comprising a woofer and a tweeter as recited in claim 2, further comprising a least one constant resistance network operatively connected to at least one of said low-pass filter and said high-pass filter and having a topology comprising a parallel R-C combination series connected to a parallel ~~L-C~~ R-L combination and wherein ~~at least one~~ a first of said resistive elements R is replaced by at least one of said low-pass filter and the woofer loudspeaker driver associated therewith, and a second of said resistive elements R is replaced by at least one of said high-pass filter and the tweeter loudspeaker driver associated therewith so that said crossover network presents a substantially constant impedance at said signal input across a predetermined frequency range.

Claim 4 (original): The crossover network for a loudspeaker system comprising a woofer and a tweeter as recited in claim 2, wherein said predetermined frequency range comprises a range of frequencies of between approximately 20 Hz and 20 KHz.

Claim 5 (previously presented): The crossover network for a loudspeaker system as recited in claim 1, wherein said loudspeaker system further comprises a mid-range driver, said crossover network further comprising:

c) a mid-range band-pass filter operatively connected to said signal input and to said mid-range driver, said mid-range band-pass filter having an effectively infinite upper frequency slope and a relatively shallow lower frequency slope.

Claim 6 (original): The crossover network for a loudspeaker system comprising a woofer and a tweeter as recited in claim 5, further comprising a constant resistance network operatively connected to at least one of said low-pass filter, said band-pass filter, and said high-pass filter so that said crossover network presents a substantially constant impedance at said signal input across a predetermined frequency range.

Claim 7 (previously presented): In a multi-driver loudspeaker system comprising at least a woofer, a tweeter, and a crossover network operatively connected to each thereof, said crossover network comprising a low-pass filter having a low-pass filter frequency response, comprising a pair of mutually-coupled coils so as to generate a transmission zero in said low-pass filter frequency response and an effectively infinite upper frequency slope, said low-pass filter being operatively connected to said woofer, and a high-pass filter also having infinite slope characteristics at both its upper and lower frequency slopes and operatively connected to said tweeter, the improvement comprising:

relaxing said infinite slope characteristic of said lower frequency slope of said high-pass filter.

Claim 8 (original): The multi-driver loudspeaker system as recited in claim 7, the improvement further comprising:

operatively connecting at least one constant resistance network to a signal input of said crossover network, whereby said multi-driver loudspeaker system presents a substantially constant impedance across a range of frequencies of approximately 20 Hz to 20 KHz at said signal input.

Claim 9 (original): The multi-driver loudspeaker system as recited in claim 7, wherein said multi-driver loudspeaker system further comprises a mid-range driver and said crossover network further comprises a band-pass filter operatively connected to said mid-range driver, the improvement further comprising relaxing said infinite slope characteristic of said lower frequency slope of said band-pass filter.

Claim 10 (original): The multi-driver loudspeaker system as recited in claim 9, the improvement further comprising:

> operatively connecting at least one constant resistance network to a signal input of said crossover network, whereby said multi-driver loudspeaker system presents a substantially constant impedance across a range of frequencies of approximately 20 Hz to 20 KHz at said signal input.

Claim 11 (previously presented): A crossover network for a loudspeaker system comprising at least a high-frequency driver (tweeter) and a low-frequency driver (woofer), a woofer portion of said crossover network having a transfer function comprising a pole cluster having at least two poles and at least one zero, said at least one zero located at infinity on a pole-zero plot of said transfer function, said crossover network comprising at least one transformer disposed such that said at least one zero is moved from infinity to a point on an imaginary or frequency axis of said pole-zero plot proximate said pole cluster thereby creating a band edge frequency response of said crossover network that approximates a brick wall function.

Claim 12 (original): In a crossover network for a loudspeaker system comprising at least a high-frequency driver (tweeter) and a low-frequency driver (woofer), said crossover network having a transfer function comprising a pole cluster having at least two poles and at least one zero, said at least one zero falling along an imaginary axis of a plot of said transfer function at an approximately infinite distance from the origin of said imaginary axis, the improvement comprising:

> adding at least one transformer to said crossover network disposed such that a said at least one zero is moved to a point proximate said pole cluster thereby creating a band edge frequency response of said crossover network that approximates a brick wall function.

Claim 13 (previously presented): The crossover network for a loudspeaker system comprising a woofer and a tweeter as recited in claim 1, wherein said mutually-coupled coils comprise a transformer.